

Amendmen After Decision on Appeal

Serial No. 09/027,439

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This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:****1.-4'. (Cancelled)**

48. (Previously Presented) An isolated nucleic acid molecule consisting of SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6, or an RNA equivalent thereof, or a nucleic acid complementary to said isolated molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules, or a nucleic acid substantially complementary to said isolated molecule which is capable of hybridizing to the nucleic acid molecule under the following stringent conditions: hybridization at 40°-65°C for 14-16 hours in a hybridization solution at pH 7.8, containing 0.9 M NaCl, 0.12 M Tris-HCl, 6nM EDTA, 0.1M sodium phosphate buffer, 0.1% SDS and 0.1% polyvinylpyrrolidone, followed by three 15-minute washes at 40°-65°C to remove unbound probes in a solution at pH 7, containing 0.075 M NaCl, 0.0075 M Na Citrate and 0.1% SDS.

**49.-51. (Cancelled)**

52. (Previously Presented) The isolated nucleic acid molecule consisting of the nucleotide sequence of SEQ ID NO: 6.

53. (Previously Presented) An isolated nucleic acid molecule comprising a nucleotide sequence of SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6, or an RNA equivalent thereof, or a nucleic acid complementary to said isolated molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules.

**54. (Cancelled)**

55. (Previously Presented) A probe which

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a) targets *Shigella flexneri* comprising a fragment greater than 10 to 40 bases in length of a nucleotide sequence SEQ ID NO: 3, an RNA equivalent thereof, or a nucleic acid complementary to said molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules,

b) targets *Shigella sonnei* comprising a fragment greater than 10 to 40 bases in length of a nucleotide sequence SEQ ID NO: 4, an RNA equivalent thereof, or a nucleic acid complementary to said molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules,

c) targets *Shigella dysenteriae* comprising a fragment greater than 10 to 40 bases in length of a nucleotide sequence SEQ ID NO: 5, an RNA equivalent thereof, or a nucleic acid complementary to said molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules,

or

d) targets *Shigella boydii* comprising a fragment greater than 10 to 40 bases in length of a nucleotide sequence SEQ ID NO: 6, an RNA equivalent thereof, or a nucleic acid complementary to said molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules.

**56. (Previously Presented) A probe which**

a) targets *Shigella flexneri* consisting of a fragment greater than 10 to 40 bases in length of a nucleotide sequence SEQ ID NO: 3, an RNA equivalent thereof, or a nucleic acid complementary to said molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules,

b) targets *Shigella sonnei* consisting of a fragment greater than 10 to 40 bases in length of a nucleotide sequence SEQ ID NO: 4, an RNA equivalent thereof, or a nucleic acid complementary to said molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules,

c) targets *Shigella dysenteriae* consisting of a fragment greater than 10 to 40 bases in length of a nucleotide sequence SEQ ID NO: 5, an RNA equivalent thereof, or a nucleic acid complementary to said molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules,

or

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d) targets *Shigella boydii* consisting of a fragment greater than 10 to 40 bases in length of a nucleotide sequence SEQ ID NO: 6, an RNA equivalent thereof, or a nucleic acid complementary to said molecule, capable of base-pairing according to the standard Watson-Crick complementarity rules.

**57. (Previously Presented)** A probe as in claim 55 which comprises 15-25 bases in length.

**58. (Previously Presented)** A probe as in claim 56 which comprises 15-25 bases in length.